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Note on the Regnal Years in the Aramaic Papyri from Assuan. By E. B. Knobel.

In my paper on these papyri published in the Monthly Notices for March 1908, I referred to the regnal years of the kings of Persia, but without attempting any explanation as to how those years were reckoned. It is important to investigate the question, as the calendar dates must necessarily depend upon the determination of the accession of the kings, whence the commencement of the regnal years can be fixed.

Regnal years at this period appear to have been reckoned in three different ways. First, they were determined from the accession of the king precisely as the regnal years in this country: Oppert states that this system was used in Assyria, and was that adopted in the Bible; secondly, they were reckoned as beginning on the 1st. Nisan following the accession; and thirdly, the regnal years were considered to commence with the 1st. Thoth of Nabonassarean and Egyptian years preceding the actual accession. This is the system adopted in Ptolemy's canon.

The records which enable us to determine the dates of accession of the kings from Xerxes the Great to Darius Nothus are fairly clear.

#### Xerxes the Great.

Fynes Clinton (Fasti Hellenici) states that the accession of Xerxes was about the spring of B.C. 485. Oppert, however, has called attention to a Babylonian tablet which records that Darius Hystaspes, the father of Xerxes, was living September B.C. 485, and he concludes definitely that the accession of Xerxes was in the autumn of that year.\* I think this may be accepted as the true period of his accession.

## Artabanus.

Xerxes was assassinated by Artabanus in the beginning of the archonship of Lysitheus—the 4th. year of the 78th. Olympiad. The commencement of this archonship is well determined as July B.C. 465, consequently the accession of Artabanus can be fixed as July or August B.C. 465.

# Artaxerxes Longimanus.

Artabanus reigned for seven months, on which all authorities agree, which brings us to February B.C. 464, when he was killed by Artaxerxes, whose accession is thus fixed with considerable accuracy.†

\* "La fixation exacte de la chronologie des derniers rois de Babylone."

† Thucydides records that in the 4th. year of the 78th. Olympiad, July B.C. 465 to June B.C. 464, Themistocles went up the country with one of the Persians who dwelt on the coast, and sent a letter to Artaxerxes, the son of Xerxes, who had just succeeded to the throne. This journey would probably be made in the winter, and not in the summer.

## Xerxes II. and Sogdianus.

The death of Artaxerxes is recorded by Thucydides as occurring in the winter of the archonship of Stratocles—the 4th. year of the 88th. Olympiad—about December B.C. 425 or January B.C. 424—and the greater part of the year B.C. 424 is occupied by the short reigns of Xerxes II. and Sogdianus.

#### Darius Nothus.

Fynes Clinton says that the accession of Darius Nothus may be gathered from Thucydides, who, in discussing the third treaty in the 20th. year of the Peloponnesian war, places the 13th. year current of his reign in the winter of the archon Callias, in the 1st. year of the 92nd. Olympiad, about February B.C. 411. This testimony critically agrees with the date of Ptolemy's canon, which places the 1st. Thoth of Darius Nothus at December 7 B.C. 424, precisely 12 years 2 months before the date of the treaty in Thucydides. This is confirmed by Diodorus, who places the accession about the 6th. month of the archon Isarchus, the 1st. year of the 89th. Olympiad, December B.C. 424.

### Accession Dates.

Xerxes the Great .		September or Octob	er B.C.	485.
Artaxerxes Longimanus	•	February	,,	464.
Darius Nothus		December	•	424.

We have now to consider the regnal years given in the papyri, and determine the system which best accords with those dates. (With regard to J, I have come to the conclusion, from a careful examination of the original negative, that the second year of the king therein given must be read as 9, and not 8.)

It seems to be established that the short reigns of the above kings, Artabanus, Xerxes II., and Sogdianus, are included in the regnal years of the predecessor, or distributed between the last year of the predecessor and the first year of the successor.

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Thus 21 regnal years are ascribed to Xerxes the Great.
41 ,, ,, Artaxerxes.
10 ... Darius Nothus.
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Regnal years as given in the papyri:—

- A. 15th. year of Xerxes.
- B. 21st. year (of Xerxes), the beginning of the reign when Artaxerxes the king ascended the throne.
- C and D. 6th. year of Artaxerxes.
  - E. 19th. ,, ,, ,, ,, G. ?
  - H. 4th. year of Darius.
  - J. 8th. and 9th. year of Darius.
  - K. 13th. and 14th. year of Darius.

If we assume that the regnal years were reckoned from the accession, then the 15th. year of Xerxes would not include September 12 B.C. 471, and the 21st. year would not commence till 3 or 4 months after he was dead - clearly this method must be inapplicable.

If we adopt the view of Oppert that the regnal years began with 1st. Nisan after the accession, then September 12 in the 15th. year of Xerxes would be B.C. 470, and the 21st. year would begin nine months after his death and two months after the accession of Artaxerxes. Certainly this could not have been the method adopted in the papyri.

But if the regnal years began with the 1st. Thoth preceding the

accession, then—

- A. Sept. 12 B.C. 471 was in the 15th. year of Xerxes.
- B. The 21st. year of Xerxes would begin Dec. B.C. 466, or seven months before his death.
- C. and D. Dec. 11 B.C. 459 was in the 6th, year of Artaxerxes.

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E. Nov. 17
                 446
                                19th.
F. Aug. 26
                                25th.
              ,, 440
                         ,,
H. Sept.
                                              Darius.
              ., 420
                                 4th.
J. Dec. 16
                416
                                 9th.
K. Feb. 10
                                14th.
             ,,
                410
                         ,,
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With the exception of the difficult case of D, which in my former paper was guessed at, the whole of the above agree with the years I have ascribed. I do not think there can be much doubt that the regnal years in question were reckoned from the 1st. Thoth preceding the actual accession.

The view of the late M. Oppert that the regnal years in the Bible were reckoned from the accession is not correct in one The first verse of the first chapter of Nehemiah notable instance. states, "And it came to pass in the month Chisleu, in the twentieth year, as I was in Shushan the palace": \* and the second chapter, referring to subsequent proceedings, begins, "And it came to pass in the month Nisan, in the twentieth year of Artaxerxes the Here we have Chisleu (November or December) preceding Nisan (March and April) in the same regnal year. Clearly the regnal year did not begin with Nisan; and if it began with the accession of Artaxerxes (February), then Nisan would have preceded Chisleu; but if the year began with Thoth, the explanation is complete. Thus the date of the first chapter of Nehemiah is December B.C. 446, and that of the second March or April B.C. 445.

We are now in a better position to consider the somewhat anomalous statement in papyrus B, with the explanations suggested by Mr. Fotheringham and Dr. Schürer.

On the 18th. of Chislen that is the (7th.) day of Thoth, the 21st. year (of Xerxes), the beginning of the reign when Artaxerxes the king ascended the throne."

<sup>\*</sup> Shushan was the winter palace of the kings of Persia.

The papyrus is broken at one date, and only four strokes of the number expressing the day of Thoth are left. Mr. Cowley completes this, and considers it to be the number 7. The reign of Artabanus occupied the latter part of the 21st. regnal year of Xerxes and the commencement of the 1st. regnal year of Artaxerxes. On account of the intervention of the reign of Artabanus, it is impossible that any portion of the 21st. year of Xerxes could embrace any of the 1st. year of Artaxerxes, and it is noticeable that the papyrus does not here give any regnal year of Artaxerxes. I was in error in the former paper in departing from the text and designating B as the 1st. regnal year of Artaxerxes.

Mr. Fotheringham and Dr. Schürer suggest that the date missing in the papyrus is 17th. Thoth, January 3 B.C. 464. Mr. Cowley is of opinion that there is not space in the gap for the number 17. But supposing there were sufficient room for the number 17, then January 3 B.C. 464 would be during the reign of Artabanus, and the colony at Syene could never have heard of Artaxerxes, who did not ascend the throne till the following month. Moreover, it must be pointed out that Babylon is more than 1300 miles' journey from Syene, and therefore the news of any change in dynasty at the capital would not reach Upper Egypt for several months. The date I have ascribed to B is ten months after the accession of Artaxerxes, and I do not think the facts of the case are inconsistent with that conclusion.

D. It is natural that the suggestion I hazarded about the date of this papyrus should be received with considerable scepticism, though the same idea had occurred to others.

J. As I have pointed out above, this should be the 9th year of Darius, and I agree with Mr. Fotheringham and Dr. Schürer in their remarks on J and K, that the lower regnal year is computed from Nisan and the higher from Thoth.

The problem suggested by these papyri has, I think, to be considered more from a practical point of view, for it does not There is a colony of Jews, somewhat admit of exactitude. isolated and far removed from Jerusalem and Babylon, and for their needs they would have to adopt some form of regular calendar. What course would they probably adopt? considered that what was current in Babylon during captivity would be continued by the Jews in their subsequent migration; and the direct connection between the colony at Syene and Babylon leads me to consider it not unwarrantable that the calendar months at Babylon should have been adopted by them. The dates I have given hang together on a definite system, which is not inconsistent with a calendar constructed on a mean moon, as suggested by Mr. Fotheringham.

# Calendar Dates in the Aramaic Papyri from Assuan. By J. K. Fotheringham.

(Communicated by E. B. Knobel.)

Those who are interested in ancient calendars and their astronomical significance will be grateful to Mr. Knobel for the close examination that he has given the dates in the Assuan papyri in the Monthly Notices of March 1908. Mr. Knobel's verification of these dates is in the majority of cases beyond controversy, and is a marked improvement on the dates given by Mr. Cowley from a mere reckoning by the years of Persian kings without reference to There are, however, two instances where it astronomical data. seems to me that Mr. Knobel's dates are capable of emendation, and I think it is also doubtful whether he is right in the calendar

principles by which he attempts to explain them.

The papyri edited by Professor Sayce and Mr. Cowley \* belong to a series of Aramaic papyri, which also includes three papyri edited by Professor Sachau † and translated into English by Canon Driver, ‡ and one papyrus edited by Professor Euting.§ papyri contain lunar dates with Aramaic month-names, but in those edited by Professor Sayce and Mr. Cowley these dates are accompanied by the corresponding dates of the Egyptian calendar, doubtless because they are all of the nature of contracts dealing with rights of property in Egypt, whereas the papyri edited by Professor Sachau and Professor Euting, which are of the nature of petitions to Persian authorities outside Egypt, contain none but the Aramaic month-names.

It has been assumed by all writers whose works have met my eye that the months with Aramaic names belong to the Jewish calendar, probably because the papyri belonged to a Jewish community. The argument does not appear to me to be conclusive. It is well known that these names are of Babylonian origin, and were not adopted by the Jews till the captivity, nor were they adopted by the Jews only, but also by the other peoples of Syria and Mesopotamia. || It may therefore be better to call these month-names Aramaic until it is determined to what calendar they belong.

A very brief inspection of the papyri will show that these Aramaic dates belong to a lunar calendar; and since the Egyptian calendar is well known, each year consisting of 365 days, it should be possible by a comparison of a table of Egyptian dates with a table of new moons to date precisely each papyrus that bears a double date, and to fix accurately the regnal years of Persian kings to which they are referred. The papyri that bear only an Aramaic

\* Aramaic papyri discovered at Assuan, 1906.

‡ The Guardian, Nov. 6, 1907, p. 1827 f.

<sup>†</sup> Abhandlungen der königl. preuss. Akademie der Wissenschaften, 1907.

<sup>§</sup> Notice sur un papyrus Égypto-Araméen de la Bibliothèque impériale de Strasbourg, 1903.

<sup>||</sup> See Schiaparelli, Astronomy in the Old Testament, Oxford, 1905, p. 111.